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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/725,197	12/01/2003	Xuejun Wang	324212003700	9816

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EXAMINER

COBY, FRANTZ

ART UNIT	PAPER NUMBER
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2161

DATE MAILED: 09/18/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/725,197	Applicant(s) WANG ET AL.	
	Examiner Frantz Coby	Art Unit 2161	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 24 July 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-59 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-59 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

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This is in response to Applicant's amendment filed on July 24, 2006 in which claims 1-59 are presented for examination; of which, claims 1, 21, 31 were amended.

Status of Claims

Claims 1-59 are pending; of which claims 1, 21, 31 are independent claims.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claim 1-59 are rejected under 35 U.S.C. 103(a) as being unpatentable over Zamir et al (Zamir), US 2005/0240580, 27 October 2005 in view of Pollack et al. U.S. Patent no. 6, 578, 025.

Zamir is directed to searches that involve a user profile that determines the interest of the user [0002], [0010].

As to claim 1:

A method for searching, said method comprising the steps of: receiving a first search term; and providing a plurality of candidate search terms related to said first search term, wherein said candidate search terms are generated in accordance with relevancy scores, and said candidate search terms comprise potential alternative search terms.

A search term is received when a user submits a search query [FIG 1]. A plurality of search terms is associated with the query terms in a plurality of ways [FIG 2], [0011], including a term-based profile [FIG 2,231], [0031], [0041]. Search terms are given weights that are generated in accordance with relevancy scores [0040]-[0043], [FIG 3].

In the BACKGROUND, Zamir teaches that the quality of a search query is improved and more satisfactory with respect to a specific query [0007]. This is a motivation for his improvement, and it is clear that a "specific" query is a narrower one, such as one defined by terms of more personal interest. This generally may be done by query refinement [0008].

At [0009], Zamir provides the example of searching for "blackberry", and the improvement that may occur, for a given user preference, by including or using other terms and/or topics such as "recipe", or other food related text. Such related terms

correspond to potential alternative search terms. In the SUMMARY, Zamir teaches that a user profile comprises multiple items "that characterize a user's interests or preferences." This clearly includes alternative search terms rather than just documents that contain them in order to characterize the preferences. So does "sampled content."

Furthermore, as set forth in the rejections of the previous action (with respect to claim 20), Zamir applies context analysis in order to identify the most important terms in documents returned by a search [0065]-[0067].

With respect to the claimed feature of "said candidate search terms comprise potential alternative search terms" it would have been obvious to one of ordinary skill in the art at the time of the invention to suggest the refinement of a query such as by returned results of other foods and/or recipes and/or by characterizing a user's interest or preferences by providing potential alternative candidate terms and/or by providing sampled content for this purpose because all of these are methods of personalizing placed content [0010].

It is noted, however, Zamir did not specifically detail the claimed features of "said relevancy scores are based on behavior of a plurality of users" as recited in the independent claims 1, 21 and 31. On the other hand Pollack et al. achieved the aforementioned claimed feature by providing a method and apparatus for distributing information to users including methodologies for providing information to a plurality of users based on the relevancy of the information to the users. Wherein, an incoming message is received. Similarity scores are generated indicating similarities of the incoming message to features of a plurality of messages. Relevancy scores are

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generated for the plurality of users the relevancy scores indicating relevancies of the incoming message to the plurality of users based on the similarity scores and a plurality of user profiles including information descriptive of the plurality of users' preferences for the features of the plurality of users. Message information derived from the incoming message, the relevancy scores, and the plurality of user profiles is delivered to at least some of the plurality of users (See Pollack et al. Title, Abstract, Col. 3, line 3 -Col. 4, line 67).

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the search system of Zamir by incorporating the similarity scoring techniques of Pollack et al. The motivation being to allow Zamir search system to provide users a means to control how frequently messages are delivered to them in order to avoid being overloaded with information (See Pollack et al. Col. 3, lines 7-9).

As to claim 3, the user click stream can be used to determine relevancy [0054].

As to claims 2 and 4-5, it is the nature of advertisements that they are associated with sales, brands and products, and are included in placed content [0011].

As to claims 6-7, previous searches correspond to related searches [0032] and they are associated with links [0033].

As to claim 8, Zamir provides for user profiles to be aggregated [0046], and generated and/or stored on servers or at the client [0047], both of which imply that the candidates may not be generated on-line during a specific query.

As to claims 9-10, Zamir uses a profile table [FIG 3, 0048] that corresponds to a look-up table, and hash tables [0057].

As to claims 11-12, Zamir applies paragraph sampling that includes selection of the first N words of a paragraph [0061,0062], and this corresponds to a span.

As to claim 15, the category map of FIG 4A corresponds to a dictionary [0045], [0052], [0053].

As to claim 19, Zamir aggregates and weights terms accumulated over a period of time and/or at predetermined times or elapsed times [0045], [0075].

As to claim 20, Zamir teaches the use of context analysis [0065], which includes the display position of candidate search terms.

The elements of claims 21-30, 31-42, 45 and 49-50 are rejected in the analysis above and these claims are rejected on that basis.

As to claims 13-14, the inflection distance as defined at [0043] of the US PUB for this case, 2005/0108210, the only embodiments set forth involve a number of words or letters that are different between similar search terms. The definition is clearly intended to be broader than those embodiments, in the form of some "distance", which reduces to a metric on pairs. It was common practice at the time of the invention to provide for mathematical (metric) similarity measures between search terms [Zamir 0048 and 0049], but Zamir specifies a weight rather than a distance between terms. It is necessary to use distances in some form in order to cluster terms or to determine the relationship between specific pairs of terms, both of which were well known in the art and well within the purview of one of ordinary skill. More importantly, sorting and ranking are fundamentally determined by comparisons of pairs. In Zamir, both pages and placed content items are ranked.

It would have been obvious to one of ordinary skill in the art at the time of the invention to determine inflection because it provides an efficient basis for ranking pages and placed content.

As to claims 16-18, neither Zamir, nor Pollack et al. explicitly specify the use of particular varieties of dictionary (brand, artist), or a product of a brand taken from a brand dictionary.

However, as noted above, placed content in the form of advertisements includes brands and products of such brands, and is matched to a user query [0116]. Further, the categories, including those of FIG 4A include music and lyrics, which suggests that

categories such as singers, bands, and the like would be included in the refinements of these general categories. A sub-map of either lyrics or music that included them corresponds to an artist dictionary.

It would have been obvious to one of ordinary skill in the art at the time of the invention to provide for details such as specific brands and artistic elements in a dictionary or map because there are such a large number of possibilities that refinement of the search is efficient and useful.

The elements of claims 43-44, 46-48 and 51-59 are rejected in the analysis above and these claims are rejected on that basis.


Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Frantz Coby whose telephone number is 571 272 4017. The examiner can normally be reached on Monday-Friday 9:00AM-5: 30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jeffrey Gaffin can be reached on 571 272 4146. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.


FRANTZ COBY
PRIMARY EXAMINER

September 14, 2006